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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
HANNETT, JAMES M	
ART UNIT	**PAPER NUMBER**
2612	

DATE MAILED: 01/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/447,837	NEIL ET AL.	
	Examiner	Art Unit	
	James M Hannett	2612	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11/8/2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-5,7,9-13,15 and 17-26* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5, 7,9-13,15 and 17-26* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *07 June 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *11/8/2004*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11/8/2004 has been entered.

Response to Arguments

Applicant's arguments with respect to claims 1-5, 9-13, and 17-25 have been considered but are moot in view of the new ground(s) of rejection. Furthermore, the Applicant's arguments filed 11/8/2005 have been fully considered but they are not persuasive.

Applicant's arguments, see Amendment , filed 11/8/2004, with respect to the rejection(s)of claim(s) 1-5, 9-13, and 17-25 under Konno in view of Johnson, Jr have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Hamano.

The applicant argues that neither Konno nor Johnson, Jr discloses a zoom lens system and that the mere shape of the lens elements depicted in Figure 1 of Konno does not suggest that a zoom lens is being depicted. The examiner agrees with the applicants assertion. However, Konno teaches a detachable lens barrel and does not give the specific of the lens components in the lens barrel. Hamano as discussed below teaches that it is advantageous to enable the optical systems of cameras to have both movable focus and zoom lenses.

The applicant argues that neither Konno nor Johnson, Jr disclose a relay lens group between an optical stop and an image plane. The applicant argues that nowhere in Konno or Johnson, Jr is the term relay lens group found.

The examiner disagrees with the applicants assertion. Konno et al depicts in Figure 4 the use of a camera that has a first optical lens group associated with the optical elements in the lens barrel (10). Furthermore, Konno et al depicts a second lens group (13) associated with an optical extender. Konno et al depicts the low pass filter (optical element 12) in Figure 4. Although Konno et al does not specifically recite in the specification the words relay lens group, the examiner views the term relay lens group to be broad and views the optical lenses (13) and the other optical elements within the camera body (1) as being optical elements associated with a relay lens group. The examiner makes this analogy because the lenses in the camera housing (1) along with the extender lenses (13) relay light. Therefore, the low-pass filter (12) is located within a relay lens group and is located between the optical stop (shutter) and image sensor (2).

The applicant argues that neither Konno nor Johnson, Jr teaches locating the optical element wherein the light rays are substantially collimated and perpendicular to the optical element. The applicant argues that in Konno the light rays are converging from the larger lens elements in the lens barrel 6 to the smaller image sensor. Therefore, they are not substantially collimated or perpendicular.

The examiner agrees with the applicants assertion that in Konno the light rays are converging from the larger lens elements in the lens barrel 6 to the smaller image sensor. However, the examiner relied on Johnson Jr. to teach on Column 7, Lines 65-67 that it is advantageous to place an interference filter after optics that collimate the light incident on the

filter in order to increase transmittance. Therefore, as stated in the office action below it would have been obvious to one of ordinary skill in the art to add optics to the lens barrel of Konno et al that will collimate the light incident on the filter (12) in order to increase transmittance.

The applicant argues that Johnson Jr. only discloses an interference filter, and does not teach anything related to a lens of any type. The applicant then assets that therefore, Johnson Jr cannot teach locating an optical element such that certain characteristics are preserved regardless of the movement of the zoom lens group. The applicant further argues that although Johnson Jr does teach using collimation devices to collimate radiation, it does not teach orienting light rays perpendicular to the optical filter.

The examiner disagrees with the applicant. The examiner acknowledges that Johnson Jr teaches placing the optical element (12) after collimation lenses. Furthermore, Konno et al depicts in Figure 4 that the optical element (12) is oriented in the camera in such a way that the light rays are perpendicular to the optical filter (12). Furthermore, although Johnson Jr does not teach anything related to a lens of any type, Johnson Jr does teach placing collimation lenses directly before the filter in order to collimate the radiation incident to the filter. Therefore, if these collimation lenses were placed after a lens barrel including zoom and focus control the incoming light from the lens barrel would be collimated regardless of the location of the zoom and focus lenses.

In response to applicant's arguments against the references individually pertaining to Claims 7 and 15, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

1: Claims 1-5, 7, 9-13, 15, 17-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,157,781 Konno et al in view of USPN 5,646,781 Johnson, Jr in further view of USPN 5,568,197 Hamano.

2: As for Claim 1, Konno et al teaches on Column 3, Lines 51-63 an objective lens for an electronic camera, an improvement comprising: An optical element (8b) on an optical axis of the lens and having a surface at a location along the optical axis having light rays substantially perpendicular to the surface, for causing a modification of the spectrum of light waves supplied to the camera in a manner for the camera to simulate a predetermined spectrum of light rays. Konno et al teaches the use of a lens barrel that has a plurality of lenses as depicted on Figure 2. Konno et al teaches on Column 2, Lines 6-10 that the camera has a focusing feature. In an objective zoom lens for an electronic camera, the objective lens having a lens group located between object space and an optical stop (the optical stop is viewed as the shutter/iris as depicted in Figure 1) and a relay lens group located between optical stop and an image plane. The relay lens group is viewed by the examiner to be the lenses (13) and lenses in the camera body (1) depicted in Figure 4. The object space is viewed by the examiner as the object to be photographed which is to the left of the lens barrel in Konno et al. The image plane is viewed by the examiner to be the image sensor (2). Therefore, all of the lenses in the lens barrel of Konno et

al are located between the object space and the image plane. Furthermore, Konno et al teaches the use of a lens barrel that has a plurality of lenses as depicted on Figure 2. Konno et al teaches on Column 2, Lines 6-10 that the camera has a focusing feature. Konno et al depicts in Figure 1 an optical stop or iris that is located after the lens optics and before the image sensor (2). Although Konno et al does not discuss the iris in the specification. The Iris is viewed as the first feature in the lens barrel (10) of Figure 4 to the left of the low-pass filter (12). Therefore, Konno et al teaches placing the optical element (12) after the optical stop (iris) and before the image sensor (3). Furthermore, the optical element (12) is located within the relay lens group (13).

Konno et al teaches that the filter is a low-pass filter and that the filter can be replaced with any suitable filter. Konno et al does not teach that the filter has a coating on the optical element surface forming an interference filter.

Johnson, Jr teaches the use of an optical filter that has a coating of layers that are composed of low refractive index material and high refractive index material. Johnson, Jr teaches that light transmitted by this filter provides an enhanced image for viewing by the human eye as well as film and image sensors. Johnson, Jr further teaches on Column 7, Lines 65-67 that it is advantageous to place an interference filter after optics that collimate the light incident on the filter in order to increase transmittance.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the filter of Johnson, Jr in the camera of Konno et al and to add optics directly before the filter to collimate the radiation in order to provide an enhanced image for viewing by the human eye as well as film and image sensors. Therefore, the light rays would then be collimated and would be perpendicular to the image sensor (2).

Konno et al teaches the use of a detachable lens barrel for use in an SLR digital camera. However, Konno et al does not go into detail in the specification about the operation of the detachable lens barrel for the camera and does not specifically state that the lens barrel has movable lens groups that will enable a user to focus and zoom in on the image.

Hamano et al teaches in Column 3, Lines 32-67 and depicts in Figure 1 that it is advantageous when designing a camera system to enable the camera lenses to move in order to provide the user with the capability to focus and zoom in on the image.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to enable the detachable lens barrel of Konno et al to move zoom and focus lenses in order to provide the user with the capability to focus and zoom in on the image.

3: In regards to Claim 2, Johnson, Jr further teaches that the optical element (10) surface is optically flat Column 7, Lines 55-67 and in Figure 5.

4: As for Claim 3, Konno et al further teaches in Figure 4 and on Column 3, Lines 45-55 that the optical element is removable and replaceable from the objective lens.

5: In regards to Claim 4, Konno et al further teaches on Column 3, Lines 59-63 a replacement optical element having substantially the same optical characteristics and without the coating. It is viewed by the examiner that because the filters that would be placed into the lens barrel would have to be the same shape and size that that constitutes having substantially the same optical characteristics.

6: As for Claim 5, Konno et al in view of Johnson, Jr teaches the claimed invention as discussed in Claim 1. Konno et al teaches the use of a lens barrel (6) that is connected to a camera (1). Konno et al further teaches the method of having a removable filter (7) placed after

the lend barrel. Konno et al does not specifically discuss the workings of the lens barrel in the specification. However Konno et al supplies a depiction of the workings of the lens barrel in Figure 4. Konno et al depicts in Figure 1 what is viewed by the examiner to be an iris that is adjacent to the Filter (8b) in order to control the incident light supplied to the camera.

7: As for Claim 7, Konno et al in view of Johnson, Jr teaches the claimed invention as discussed in Claim 1. Konno et al teaches the use of a lens barrel (6) that is connected to a camera (1). Konno et al further teaches the method of having a removable filter (7) placed after the lend barrel. However Konno et al does not specifically discuss the workings of the lens barrel and only supplies a depiction of the workings of the lens barrel in Figure 4.

Hamano et al teaches in Figure 1 and teaches on Column 3, Lines 40-57 the inner workings of a lens barrel. Hamano et al teaches the use of a zooming lens (4) in order to magnify the image and supply a magnified image to the camera.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a zoom lens in the lens barrel of Konno et al in order to supply a magnified image to the camera.

8: As for Claim 9, Johnson, Jr further teaches on Column 3, Lines 41-60 that the coating includes layers of low refractive index material and layers of high refractive index materials for producing the predetermined spectrum of light rays.

9: In regards to Claim 10, Konno et al teaches on Column 3, Lines 51-63 An optically flat element (8b) on and perpendicular to an optical axis of the lens at a location along the optical axis. Konno et al teaches the use of a lens barrel that has a plurality of lenses as depicted on Figure 2. Konno et al teaches on Column 2, Lines 6-10 that the camera has a focusing feature. In

an objective lens for an electronic camera (lens barrel), the objective lens having two or more lens groups located between object space and an optical stop. The object space is viewed by the examiner as the object to be photographed which is to the left of the lens barrel in Konno et al. The image plane is viewed by the examiner to be the image sensor (2). Therefore, all of the lenses in the lens barrel of Konno et al are located between the object space and the image plane. Furthermore, Konno et al teaches the use of a lens barrel that has a plurality of lenses as depicted on Figure 2. Konno et al teaches on Column 2, Lines 6-10 that the camera has a focusing feature. Konno et al depicts in Figure 1 an optical stop or iris that is located after the lens optics and before the image sensor (2). Konno et al depicts in Figure 4 a relay lens group (13 and lenses in camera body 1) located between the iris and the image sensor. Although Konno et al does not discuss the iris in the specification. The Iris is viewed as the first feature in the lens barrel (6) of Figure 2 to the left of the low-pass filter (8). Therefore, Konno et al teaches placing the optical element (8) after the optical stop (iris) and before the image sensor (3). Konno et al teaches that the filter is a low-pass filter and that the filter can be replaced with any suitable filter. Konno et al does not teach that the filter has a coating on the optical element surface forming an interference filter.

Johnson, Jr teaches the use of an optical filter that has a coating of layers that are composed of low refractive index material and high refractive index material. Johnson, Jr teaches that light transmitted by this filter provides an enhanced image for viewing by the human eye as well a film and image sensors. Johnson, Jr further teaches on Column 7, Lines 65-67 that it is advantageous to place an interference filter after optics that collimate the light incident on the filter in order to increase transmittance.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the filter of Johnson, Jr in the camera of Konno et al and to add optics directly before the filter to collimate the radiation in order to provide an enhanced image for viewing by the human eye as well as film and image sensors. Therefore, the light rays would then be collimated and would be perpendicular to the image sensor (2).

Konno et al teaches the use of a detachable lens barrel for use in an SLR digital camera. However, Konno et al does not go into detail in the specification about the operation of the detachable lens barrel for the camera and does not specifically state that the lens barrel has movable lens groups that will enable a user to focus and zoom in on the image.

Hamano et al teaches in Column 3, Lines 32-67 and depicts in Figure 1 that it is advantageous when designing a camera system to enable the camera lenses to move in order to provide the user with the capability to focus and zoom in on the image.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to enable the detachable lens barrel of Konno et al to move zoom and focus lenses in order to provide the user with the capability to focus and zoom in on the image.

10: As for Claim 11, Konno et al further teaches in Figure 2 and on Column 3, Lines 45-55 that the optical element is removable and replaceable from the objective lens

11: In regards to Claim 12, Konno et al further teaches on Column 3, Lines 59-63 a replacement optical element having substantially the same optical characteristics and without the coating. It is viewed by the examiner that because the filters that would be placed into the lens barrel would have to be the same shape and size that that constitutes having substantially the same optical characteristics.

12: As for Claim 13, Konno et al in view of Johnson, Jr teaches the claimed invention as discussed in Claim 10. Konno et al teaches the use of a lens barrel (6) that is connected to a camera (1). Konno et al further teaches the method of having a removable filter (7) placed after the lend barrel. Konno et al does not specifically discuss the workings of the lens barrel in the specification. However, Konno et al supplies a depiction of the workings of the lens barrel in Figure 4. Konno et al depicts in Figure 1 what is viewed by the examiner to be an iris that is adjacent to the Filter (8b) in order to control the incident light supplied to the camera.

13: As for Claim 15, Konno et al in view of Johnson, Jr teaches the claimed invention as discussed in Claim 10. Konno et al teaches the use of a lens barrel (6) that is connected to a camera (1). Konno et al further teaches the method of having a removable filter (7) placed after the lend barrel. However Konno et al does not specifically discuss the workings of the lens barrel and only supplies a depiction of the workings of the lens barrel in Figure 4.

Hamano et al teaches in Figure 1 and teaches on Column 3, Lines 40-57 the inner workings of a lens barrel. Hamano et al teaches the use of a zooming lens (4) in order to magnify the image and supply a magnified image to the camera.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a zoom lens in the lens barrel of Konno et al in order to supply a magnified image to the camera.

14: As for Claim 17, Johnson, Jr further teaches on Column 3, Lines 41-60 that the coating includes layers of low refractive index material and layers of high refractive index materials for producing the predetermined spectrum of light rays.

15: In regards to Claim 18, Konno et al teaches on Column 3, Lines 51-63 An optically flat element (8b) on and perpendicular to an optical axis of the lens at a location along the optical axis. Konno et al teaches the use of a lens barrel that has a plurality of lenses as depicted on Figure 2. Konno et al teaches on Column 2, Lines 6-10 that the camera has a focusing feature. In an objective lens for an electronic camera, the objective zoom lens having two or more lens groups located between object space and an image plane and a relay lens group. The object space is viewed by the examiner as the object to be photographed which is to the left of the lens barrel in Konno et al. The image plane is viewed by the examiner to be the image sensor (2). The relay lens group is viewed by the examiner to be the lenses associated with the extender (13) along with the lenses in the camera body (1).Therefore, all of the lenses in the lens barrel of Konno et al are located between the object space and the iris/shutter (optical stop). Furthermore, Konno et al teaches the use of a lens barrel that has a plurality of lenses as depicted on Figure 2. Konno et al teaches on Column 2, Lines 6-10 that the camera has a focusing feature. Konno et al depicts in Figure 1 an optical stop or iris that is located after the lens optics and before the image sensor (2). Although Konno et al does not discuss the iris in the specification. The Iris is viewed as the first feature in the lens barrel (6) of Figure 2 to the left of the low-pass filter (8). Therefore, Konno et al teaches placing the optical element (8) after the optical stop (iris) and before the image sensor (3).

Konno et al teaches that the filter is a low-pass filter and that the filter can be replaced with any suitable filter. Konno et al does not teach that the filter has a coating on the optical element surface forming an interference filter or that the filter is placed directly after optics used to collimate the incident radiation.

Johnson, Jr teaches the use of an optical filter that has a coating of layers that are composed of low refractive index material and high refractive index material. Johnson, Jr teaches that light transmitted by this filter provides an enhanced image for viewing by the human eye as well a film and image sensors. Johnson, Jr further teaches on Column 7, Lines 65-67 that it is advantageous to place an interference filter after optics that collimate the light incident on the filter in order to increase transmittance.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the filter of Johnson, Jr in the camera of Konno et al and to add optics directly before the filter to collimate the radiation in order to provide an enhanced image for viewing by the human eye as well as film and image sensors. Therefore, the light rays would then be collimated and would be perpendicular to the image sensor (2).

Konno et al teaches the use of a detachable lens barrel for use in an SLR digital camera. However, Konno et al does not go into detail in the specification about the operation of the detachable lens barrel for the camera and does not specifically state that the lens barrel has movable lens groups that will enable a user to focus and zoom in on the image.

Hamano et al teaches in Column 3, Lines 32-67 and depicts in Figure 1 that it is advantageous when designing a camera system to enable the camera lenses to move in order to provide the user with the capability to focus and zoom in on the image.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to enable the detachable lens barrel of Konno et al to move zoom and focus lenses in order to provide the user with the capability to focus and zoom in on the image.

16: As for Claim 19, Konno et al further teaches in Figure 2 and on Column 3, Lines 45-55 that the optical element is removable and replaceable from the objective lens. Konno et al further teaches on Column 3, Lines 59-63 a replacement optical element having substantially the same optical characteristics and without the coating. It is viewed by the examiner that because the filters that would be placed into the lens barrel would have to be the same shape and size that that constitutes having substantially the same optical characteristics.

17: In regards to Claim 20, Johnson, Jr further teaches on Column 3, Lines 35-40 and Column 6, Lines 17-23 that the coating on the optical filter is applied in a way to get rid of confusing wavelengths for photographic film because photographic film is optimally sensitive to the primary colors of the spectrum. Therefore, Johnson, Jr teaches the step of selecting the coating for the optical element surface for modifying the spectrum of light rays to simulate the predetermined spectrum of a film emulsion of film for a film camera. It is viewed by the examiner that the predetermined spectrum of a film emulsion of film is the optimum spectral sensitivity for the photographic film.

18: As for Claim 21, Johnson, Jr further teaches that it is preferable to place the filter after optics that collimate radiation so that the light is perpendicular to the plane of the filter. This constitutes the step of selecting the location of the optical element surface within the relay lens group on the basis of the location having minimum ray incident angles at the surface.

19: In regards to Claim 22, Konno et al in view of Johnson, Jr teaches the claimed invention as discussed in Claim 21. Johnson, Jr teaches that light passes through a filter that has a surface that is perpendicular to the optical axis. Johnson, Jr does not teach that the maximum ray incident angle on the surface is 15 degrees. Johnson, Jr further teaches that it is preferable to place the

filter after optics that collimate radiation so that the light is perpendicular to the plane of the filter. This constitutes the step of selecting the location of the optical element surface within the objective lens on the basis of the location having minimum ray incident angles at the surface. The examiner notes that in the specification on Page 9, Lines 5-6 That "the angle of incidence is as close to perpendicular to the optical axis as possible and preferably not more that 15 degrees at any point on the surface". Therefore, the examiner will interpret "the maximum ray incident angle on the surface is 15 degrees" as " not more than 15 degrees" in line with the applicants specification. Johnson, Jr further teaches that it is preferable to place the filter after optics that collimate radiation so that the light is perpendicular to the plane of the filter. Therefore, Johnson, Jr teaches that it is preferable to have ideal angles of incidence equal to zero.

Official notice is taken that it was well know in the art at the time the invention was made that in order to optimize the transfer of light through a filter that has a surface that is perpendicular to the optical axis, and that minimizing the angle of incidence preferably to an angle that is perpendicular to the plane of the filter is preferred because it increases the transmittance.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to minimize the angle of incidence of light onto the filter of Johnson, Jr in order to optimize the transfer of light through a filter.

20: As for Claim 23, Claim 23 is rejected for reasons discussed related to Claim 1 since Claim 1 is substantively equivalent to Claim 23.

21: In regards to Claim 24, Johnson, Jr further teaches that the optical element (10) surface is optically flat Column 7, Lines 55-67 and in Figure 5.

22: As for Claim 25, Claim 25 is rejected for reasons discussed related to Claim 1 since Claim 1 is substantively equivalent to Claim 25.

23: In regards to Claim 26, Claim 26 is rejected for reasons discussed related to Claim 1 since Claim 1 is substantively equivalent to Claim 26.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James M Hannett whose telephone number is 703-305-7880. The examiner can normally be reached on 8:00 am to 5:00 pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wendy Garber can be reached on 703-305-4929. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

James M. Hannett
Examiner
Art Unit 2612

JMH
January 21, 2005

TUAN HO
PRIMARY EXAMINER